Appendix 2

ANNOTATED FORMAL DRAWING SHEET
AMENDED FIGURE 7

Stall for Next to Last PipeStage (NLP)

$Stall_{(NLP)}$ = Valid Instruction in $Pipe_{(NLP)}$ AND ($ThreadId_{(NLP)}$ = ThreadId of Stall)

Stall for any other PipeStageX

$Stall_{(X)}$ = Valid Instruction in $Pipe_{(X)}$ AND Valid Instruction in $Pipe_{(X+1)}$ AND $Stall_{(NLP)}$

Powerdown for any PipeStage X

$Powerdown_{(X)}$ = NOT Valid Instruction in $Pipe_{(X-1)}$

Clock Enable for any PipeStage X

$Clock_{(X)}$ = NOT $Stall_{(X)}$ AND NOT $Powerdown_{(X)}$

CLEAR
~~Clock~~ for any PipeStage X

$Clear_{(X)}$ = $Clock_{(X)}$ AND [($ClearThread_{(Id0)}$ AND ($ThreadId_{(X-1)}$ = Id0)) OR ($ClearThread_{(Id1)}$ AND ($ThreadId_{(X-1)}$ = Id1))]
OR
NOT $Clock_{(X)}$ AND [($ClearThread_{(Id0)}$ AND ($ThreadId_{(X)}$ = Id0)) OR ($ClearThread_{(Id1)}$ AND ($ThreadId_{(X)}$ = Id1))]

$ClearThread_{(Id0)}$ = There was a Clear on Thread Identification 0

$ClearThread_{(Id1)}$ = There was a Clear on Thread Identification 1

Pipe(X) = Any pipestage in the decode
Pipe(X-1) = Pipestage before Pipe(X)
Pipe(X+1) = Pipestage after Pipe(X)

FIG. 7